RE: LWG Stormwater - REVISED Sediment Trap Prioritization
Laura Jones
to:
Amanda Shellenberger, Carl Stivers, Kristine Koch, Sanders, Dawn, Andy Koulermos, Amanda Spencer, mcoover, Scheffler, Linda, LaFranchise, Nicole, TARNOW Karen E
02/26/2008 11:16 AM
Cc:
"Christine Hawley", "Gene Revelas", "Jim McKenna", "Jessica Pisano", "MCCLINCY Matt", "Rick Applegate", "Bob Wyatt", "Valerie Oster"
Hide Details
From: "Laura Jones" <ljones@integral-corp.com> Sort List...
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Hi – The revised prioritization table is fine with me. I agree with taking a small aliquot from the PAH/phthalate aliquot for metals analysis in outfalls 49 and 22C. Please also note that we will be asking the lab to "create" a field duplicate and will also need 2 additional aliquots for laboratory QC. We will ask the lab to create the field and lab QC samples from the OF-18 T07 sample, since we have abundant sample mass remaining. Please let me know if you have any questions about the field or lab QC samples.

Laura

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Stormwater Tech Team –

I have attached the revised sediment trap prioritization (Revised Table 2 and 3 from our last tech team call) including the sediment collected during the final deployment period. Please reply to all with your agreement or comments within three days. We would like to get this sent to the lab this week if possible.

I added an extra column in Table 2 that explains what changed since last time. In most cases the extra mass just lowered the detection limit of a particular analyte but it some cases we got a bit more sediment and were able analyze a few more things. Changes are shown in red text. I followed the priorities we discussed in the last call.

There are two instances where we decided to take a small amount of mass from the phthalate/PAH analysis and use it to analyze metals.

- At OF-49, this increases the detection limit factor for phthalates/PAH's to 1.8. If we don't analyze metals, we would have a detection limit factor of 1.5 for phthalates/PAH's

- At OF-22C, this increases the detection limit factor for phthalates/PAH's to 1.5. If we don't analyze metals, we would have a detection limit factor of 1.4 for phthalates/PAH's

Also, as discussed last time, we will process the OF-18 samples in the following way: (2 Short and 2 Tall bottles were installed in January for comparison purposes)

- Short January bottles –
  - Measure all analytes (this is different from last time because we now have enough sediment to analyze everything)
- Tall January bottles –
  - Take aliquot for all analytes to compare with short January bottles
  - Composite remainder of sediment with December tall bottles
- Tall December bottles
  - Composite with remainder of January tall bottles and analyze for everything

- Only do grain size after QC samples are obtained

<<Table 2 - REVISED 2-26-2008 Sediment Trap Priortization Summary versus detection limits.xls>> <<Table 3 - REVISED Stormwater Outfall Sed Trap Sample Mass Analytical Aliquots-022508.xls>>

Thanks!

Amanda Shellenberger, P.E.

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Stormwater Technical Team -

The Stormwater Technical Team (EPA/DEQ/LWG) discussed the proposed approach for handling stormwater sediment trap samples during our February 7 conference call. Here are the meeting highlights and action items. As always, please let me know if I missed something.

The technical team agreed to the following changes in the LWG proposed analysis prioritization approach:

- Gunderson WR-147and Cascade General WR-161 – Use the mass proposed for PCB's to measure organochlorine pesticides (PCB's were measured last spring)
- OF-22B – Use the mass proposed for PCB's to measure pesticides at the detection limit and use the remaining mass to measure PAH/phthalates (PCB's were measured last spring)
- Hwy 30 "B" – Take enough mass from the amount proposed for PAH/phthalates to measure metals at twice the detection limit. (This would increase the PAH/phthalate detection limit to about 2 times)

The revised prioritization table is attached, with changes shown in yellow.

Other items discussed included:

- Conduct phthalates analysis in stormwater at highway sites if stormwater volume is archived. It was confirmed during the call that there is no archived stormwater available.
- Collect in-line sediments from Arkema.
- Process the OF-18 samples in the following way: (2 Short and 2 Tall bottles were installed in January for comparison purposes)
  - Short January bottles –
    - Measure TS, TOC, and PCB's
  - Tall January bottles –

- Take aliquot for TS, TOC, and PCB's
- Composite remainder of sediment with December tall bottles

o Tall December bottles

- Composite with remainder of January tall bottles and analyze for everything
- Only do grain size after QC samples are obtained

- At other sites where there is extra sediment, use sediment for QC first, then conduct grain size analyses if any sediment remains.

Note that the LWG needs to obtain formal Exec. committee approval for these changes. We will notify the stormwater tech. team if LWG Exec. cannot approve these changes for some reason.

Please let me know if you have any questions, comments, or anything to add. I'd like to send this on to Exec next week for approval if there are no changes.

<< File: Table 2 - REVISED Sediment Trap Priortization Summary versus detection limits.xls >>

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Stormwater Technical Team –

Our call for tomorrow (Feb 7) starting at 12 pm is still on. Please use the following call in number:

Non-Responsive

Non-Responsive

Anchor will be sending out some information on sampling completeness and sediment trap sample masses as soon as we can. Look for this tomorrow morning.

Thanks much.

Carl

Carl Stivers
Dqfkru#Hqylurqp hqwdo/#O1O1F:
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From: #Fdu#Vwlyhuv
Sent: #P rqgd|/#Mdqxdu|#47/#533;#45=76#SP
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Stormwater Technical Team –

We agreed to have our next call on February 7th starting at noon. This will be a conf. call and not an in person meeting. I will send out a call number when we are closer to the date. The purpose of the next meeting will be to make final decisions on the sediment trap samples, which will be collected at the end of the month. Anchor/Integral will send out the most recent information on sediment trap accumulations and total solids content prior to the meeting. Note that the total solids information will be sent out just before the call because that is when it will be available.

It was also agreed that LWG consultants would work on writing up a Loading Calculation Method Plan based on agreements from the last two meetings. Attached are my notes on our agreed to approaches from this meeting. Please let me know if I missed something. Other ideas relevant to the plan that were discussed include:

… Development of a summary diagram or table on study approach and ultimate objectives for the loading rates (this would probably go in the plan).

… Table matrix of supporting data available to understand stormwater concentration data distributions (again would probably be presented in the plan)

… Development of an example GRID model output for runoff volumes needed for the calculations. This will be discussed with the City to refine the output requirements as necessary to fit with the capabilities of the GRID model.

I currently anticipate that a draft of the plan will be available in late February. We discussed mid-February previously, but given all of the data/statistical analyses that will be conducted to understand the data distributions, I am now thinking this could take a little longer.

Thanks.

Carl

<< File: Storm Notes Jan 10 2008.doc >>

Carl Stivers
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Stormwater Technical Team -

As previously agreed, we are meeting tomorrow at 11 am at the offices of Schwabe, Williamson, Wyatt at 1211 SW Fifth Avenue. I don't have a room number yet, so please inquire at the front desk on the 19th floor.

For those calling in the phone number is:

Non Responsive

Given what we discussed last time there is only one major agenda item. I think we should spend all our time on

the remaining elements of the loading methods that we have not covered yet. General issues that still need discussion include:

- Use of individual concentration data points within each category
- Outlier analysis (if any) within each category of concentration data
- Statistics on concentration data to generate for each category (and for unique sites)
- Basins appropriate and inappropriate to use land use based approach
- TSS data to be used in loading rates from sediment traps and how to apply
- Use of sediment traps and/or stormwater concentration data
- Use of measured loads vs. land use extrapolated for large basins that were sampled directly

There may be other issues to add (or more details with these), and we can discuss other issues as people suggest.

Note for tracking purposes, items that have already been discussed (and we should try to not re-visit unless absolutely necessary) are:

- Treatment of lab and field duplicates
- Summing rules (not applicable)
- Treatment of non-detects
- Placement of stations within categories

See you all tomorrow.

Thanks.

Carl

Carl Stivers

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-----Original Message-----
From: Carl Stivers
Sent: Friday, December 21, 2007 11:22 AM
To: 'Koch.Kristine@epamail.epa.gov'
Cc: Andy Koulermos; Amanda Shellenberger; Amanda Spencer; Christine Hawley; Sanders, Dawn; Gene Revelas; Jim McKenna; Jessica Pisano; Scheffler, Linda; Laura Jones; Lucinda Tear; MCCLINCY Matt; mcoover@ensr.aecom.com; LaFranchise, Nicole; Rick Applegate; Bob Wyatt; TARNOW Karen E; Valerie Oster
Subject: Next meeting Jan. 10th from 11 am to 2 pm

Stormwater Technical Team -

This is to confirm that our next meeting will be on Jan. 10th from 11 am to 2 pm. I think we all see value in having these meetings in person. I will get a meeting room and conf. number and notify everyone of those details in the near future.

Thanks.

Carl

Carl Stivers

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-----Original Message-----

From: Koch.Kristine@epamail.epa.gov [mailto:Koch.Kristine@epamail.epa.gov]

Sent: Friday, December 21, 2007 10:57 AM

To: Carl Stivers

Cc: Andy Koulermos; Amanda Shellenberger; Amanda Spencer; Christine Hawley; Sanders, Dawn; Gene Revelas; Jim McKenna; Jessica Pisano; Scheffler, Linda; Laura Jones; Lucinda Tear; MCCLINCY Matt; mcoover@ensr.aecom.com; LaFranchise, Nicole; Rick Applegate; Bob Wyatt; TARNOW Karen E; Valerie Oster

Subject: Re: Notes from Stormwater Technical Team Meeting Dec. 19th 11am to 2 pm

Carl - The 10th is my preferred date - Do I need to travel to Portland?

Also, on January 28th, I'm taking in-house training on interpreting

non-detect data correctly that may be helpful to the team, so I can

follow-up after that.

Kristine Koch

Remedial Project Manager

USEPA, Office of Environmental Cleanup

U. S. Environmental Protection Agency

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"Carl Stivers" <cstivers@anchorenv.com> 12/20/2007 04:51 To "Scheffler, Linda" <LindaSC@BES.CI.PORTLAND.OR.US>,

PM "Amanda Shellenberger" <ashellenberger@anchorenv.com>, Kristine Koch/R10/USEPA/US@EPA, "Andy Koulermos" <akoulermos@newfields.com>, "Amanda Spencer" <aspencer@ashcreekassociates.com>, "Sanders, Dawn" <DAWNS@BES.CI.PORTLAND.OR.US>, "Laura Jones" <ljones@integral-corp.com>, <mcoover@ensr.aecom.com>, "LaFranchise, Nicole" <Nicole.LaFranchise@portofportland.com>, "TARNOW Karen E" <TARNOW.Karen@deq.state.or.us>

cc

"Bob Wyatt" <rjw@nwnatural.com>, "Rick Applegate" <RICKA@bes.ci.portland.or.us>, "MCCLINCY Matt" <MCCLINCY.Matt@deq.state.or.us>, "Jessica Pisano" <jpisano@anchorenv.com>, "Gene Revelas" <grevelas@integral-corp.com>, "Christine Hawley"

<chawley@integral-corp.com>, "Jim McKenna" <Jim.McKenna@portofportland.com>, "Valerie Oster" <voster@anchorenv.com>, "Lucinda Tear" <lucindat@windwardenv.com>

Subject

Notes from Stormwater Technical Team Meeting Dec. 19th 11am to 2 pm

Stormwater Technical Team –

Here are the highlights from our last meeting. Note that any agreements noted need to be ratified by the LWG Exec. As always let me know if I missed something. The group agreed to meet again either Jan 9th or 10th from 11 am to 2 pm. Kristine – please confirm a preferred date as soon as possible.

Fall sampling status – It was agreed that shorter sediment trap bottles should be deployed at those locations with only trace sediments after 1 month of deployment and that also have flow height issues. (For example, we would not use short bottles in

catch basins, because even taller bottles are always inundated and short bottles would make no difference.) It was also agreed that both short and regular sized bottles (2 each) should be redeployed to OF-18 and each bottle type analyzed for Total Organic Carbon, to help check whether shorter bottles collect a sediments differently from standard bottles. The exact new size of short bottle was not determined, but Anchor was given leeway to decide on something with the goal of minimizing the number of variations from standard sized bottles.

Data reporting – Anchor requested that only one data report be prepared that encompassed both the spring and fall sampling results. The group agreed to this with the understanding that the actual data would be available through database postings as it becomes available post validation.

Schedule – Various potential pathways to loading estimates were discussed. All permutations discussed require that loading methods decisions be completed by mid-January and that loading estimates need to be available for Fate and Transport modeling by the start of June. Kristine indicated EPA was expecting an approval process similar to approval of the FSP as follows:

Group decides on general loading estimate methods by mid-January

Anchor/Integral prepare a draft loading methods plan

EPA/Stormwater Team review, discuss, and provide input iteratively in period between mid-January and mid-April including LWG Exec. approval step

Target EPA approval date of mid-April.

Anchor/Integral conduct loading calculations mid-April to mid-June

[I'd like to add that obviously Anchor/Integral would need some time in this period to create the initial draft (late Jan./early Feb timeframe) and LWG and EPA will need some time to officially approve it (say late March and early April). Thus, the actual Stormwater Team iterative refinement process would need to occur from about mid-February through mid-March.]

It was also agreed that Carl should work with the City simultaneously in early January determine the mechanics of using the City grid model.

Loading Methods – The following general approaches were agreed to:

All lab and field duplicates will be kept separate in the SCRA database so that widely divergent duplicates can be identified and more closely assessed. Integral will repost the SCRA consistent with this agreement.

In general, relatively consistent duplicates will be combined (e.g., averaged) before further interpretation of results. However, widely divergent duplicates will be examined to determine if an error or cause can be identified. Also, they will generally be assessed to see if a result is an outlier. Divergent results may be eliminated from further use based on these assessments.

It was agreed that summing rules (e.g., for total PCBs) are not needed because only individual chemicals will be subject to loading estimates.

It was agreed that treatment of non-detects for statistical

calculations will be based on EPA's Pro UCL program, where sample numbers are sufficient. More simple methods will need to be used for smaller data sets. The critical concept in all cases is to look at the ratio and number of non-detects relative to detects to discern the importance of non-detect handling decisions. The percentage of data points coming from non-detects will always be clearly reported.

Placement of stations within land use categories was discussed and the following was agreed to:

- The St. John's Bridge results will be compared to the two fall highway site results to determine whether the bridge is similar to these other sites and should be included in the transportation land use category.
- OF-22B should be considered a unique site for pesticides
- An outlier analysis should be done for heavy industrial category sites to see if any of these sites should be considered unique heavy industrial sites for any chemicals.
- The distributions of heavy industrial category sites and unique heavy industrial sites should be compared. Where two groups have similar distributions, some unique sites for some chemicals might be included in the heavy industrial land use category.

Note that there was concern that perhaps individual points from unique heavy industrial sites should not given equal

weight if they are used in the heavy industrial land use category. It was agreed that more discussion was needed next time on use of individual data points within each category and whether they can be all considered equivalent or not, for a number of reasons.

Thanks.

Carl

Carl Stivers

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From: Carl Stivers

Sent: Thursday, December 13, 2007 12:52 PM

To: 'Scheffler, Linda'; Amanda Shellenberger;

'Koch.Kristine@epamail.epa.gov'; 'Andy Koulermos'; 'Amanda Spencer'; 'Sanders, Dawn'; 'Laura Jones'; 'mcoover@ensr.aecom.com'; 'LaFranchise, Nicole'; 'TARNOW Karen E'

Cc: Bob Wyatt; Rick Applegate; 'MCCLINCY Matt'; Jessica Pisano; 'Gene Revelas'; 'Christine Hawley'; Jim McKenna; Valerie Oster

Subject: Stormwater Technical Team Meeting Dec. 19th 11am to 2 pm

Stormwater Technical Team –

We will be meeting on Dec. 19th from 11 am to 2 pm at Schwabe (1211 SW Fifth Avenue) to discuss the next parts of the loading calculations.

I urge everyone to attend in person if possible. If not, please use the following conference call number:

Non-Responsive

Non-Responsive

Also, I have set up a WebEx meeting, which you can access as follows:

You have been invited to join a meeting on the Web, using WebEx MeetMeNow.

Please click the following link to join the meeting:

Non Responsive

MEETING PASSWORD: Non Responsive

Date: December 19, 2007

Time: 11:00 am, Pacific Standard Time (GMT -08:00, San Francisco)

Teleconference: No teleconference

Meeting Number: Non Responsive

Non Responsive

We've got to start meeting like this(TM)

Carl Stivers

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